

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Harris et al.	EXAMINER:	Rego, Dominic E
SERIAL NO.:	10/614,839	GROUP:	2618
FILED:	07/08/2003	CASE NO.:	CE10879R
ENTITLED:	METHOD AND APPARATUS FOR REDUCING PAGING-RELATED DELAYS FOR ANTICIPATED TARGET MOBILE STATIONS		

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF

Commissioner:

Pursuant to 37 C.F.R. §41.37, the appellants hereby respectfully submit the following
Brief in support of their appeal.

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(1) Real Party in Interest

The real party in interest is Motorola, Inc.

(2) Related Appeals and Interferences

U.S. Serial No. 10/614942 is also in the appeals process. That application is owned by Motorola, Inc.

(3) Status of Claims

Claims 1-11, 13-36 and 38-43 are pending and presently stand twice and finally rejected and constitute the subject matter of this appeal. Claims 12 and 37 are canceled.

(4) Status of Amendments

No post-final amendments have been entered. An Amendment was filed after the Final Rejection mailed on November 21, 2006. The Advisory Action of March 7, 2007, indicates that this Amendment was considered but not entered. The applicants sought to cancel claims 20-22 and 40-43 to address the objection to claims 8-10, 20-22, 33-36 and 40-43; however, these amendments were not entered.

(5) Summary of Claimed Subject Matter

Claim 1, as amended, provides a method of reducing paging-related delays for anticipated target mobile stations (MS), the method including anticipating by a radio access network (RAN) that an MS is likely to be a target of communication not yet initiated and either assigning, when a loading level of a serving cell of the MS is below an assignment threshold, a traffic channel to the MS to avoid paging-related delays for the MS should the MS become a target of communication or signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced. (FIG. 3 304, 312 and 314; page 7 lines 11-18; page 9 line 32 – page 10 line 6)

Claim 30, as amended, provides a radio access network (RAN) that includes wireless transceiver equipment adapted to support signaling transmission and reception for each cell of a plurality of cells and a communications controller, communicatively coupled to the wireless transceiver equipment for each cell of the plurality of cells, the communications controller being adapted to anticipate that a mobile station (MS) is likely to be a target of communication not yet initiated and being adapted to perform at least one of assigning, when a loading level of a serving cell of the MS is below an assignment threshold, a traffic channel to the MS to avoid paging-related delays for the MS should the MS become a target of communication and signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced. (FIG. 2 101, 104, 108, 110, 201 and 120; page 7 lines 11-18; page 9 line 32 – page 10 line 6)

(6) Grounds of Rejection to be Reviewed on Appeal

Claims 1-5, 8-10, 13, 14, 17-31, 33-36, 38 and 40-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen et al. (U.S. Patent Application Publication Number 20030008657, hereinafter “Rosen”) in view of Drucker (U.S. Patent Number 5,511,110), claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen in view of Drucker and Cheng et al. (U.S. Patent Number 6,353,602, hereinafter “Cheng”), and claims 7, 11, 15, 16, 32 and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen in view of Drucker and Diaz et al. (U.S. Patent Number 5,442,809, hereinafter “Diaz”). The appellants dispute these rejections.

(7) **Argument**

Rejections under 35 U.S.C. §112, first paragraph

None.

Rejections under 35 U.S.C. §112, second paragraph

None.

Rejections under 35 U.S.C. §102

None.

Rejections under 35 U.S.C. §103

Group 1 – Claims 1-5, 8-10, 13, 14, 17-31, 33-36, 38 and 40-43

Claims 1-5, 8-10, 13, 14, 17-31, 33-36, 38 and 40-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen et al. (U.S. Patent Application Publication Number 20030008657, hereinafter “Rosen”) in view of Drucker (U.S. Patent Number 5,511,110).

Regarding the rejection of claims 1 and 30, the Examiner cites Rosen [0007, 0012, 0032, 0070, 0087 and 0089], which read as follows (emphasis added):

[0007] Existing group communication infrastructures provide limited opportunities for significantly reducing the PTT latency, i.e., actual PTT latency may not be possibly reduced below the time required to re-establish traffic channels within dormant packet-data sessions. Further, talker and listeners traffic channels are brought up in series, because the only mechanism available to begin waking up a dormant group is to wait for the talker's traffic channel to be re-established to signal the server. Currently, no mechanism exists to send mobile-originated user signaling data on anything other than a traffic channel—a limitation that requires traffic channels to be re-established before any communication between clients and the server can take place.

...

[0012] In one aspect, an apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network includes a receiver, a transmitter, and a processor communicatively coupled with the receiver and the transmitter. The processor is capable of receiving a floor-control request, e.g., in SDB form, from a source communication device for **initiating a group call, initiating a service origination process** for the source communication device, and transmitting a response to the floor-control request from a controller **after the service origination process is complete**.

...
[0032] In one embodiment, the means for requesting the transmission privilege from a CM comprises a push-to-talk (PTT) key or switch. When a user in the NBS 100 desires to transmit information to other net members, the user may depress the push-to-talk switch located on his or her CD, **sending a floor-control request to obtain the transmission privilege** from CM 110. If no other net member is currently assigned the transmission privilege, the requesting user may be granted the transmission privilege and the user may be notified by an audible, visual, or tactile alert through the CD. After the requesting user has been granted the transmission privilege, information may then be transmitted from that user to the other net member.

...
[0070] In one embodiment, the infrastructure may send the wakeup trigger 412 **to a target listener** over some available common forward channels, such as forward paging channel and forward common control channel, while the **target listeners'** traffic channels are not re-established yet. In one embodiment, the infrastructure may send the wakeup trigger 412 to the **target listener** in SDB form, regardless of what channel is used. If the **PTT floor-control request is sent** on the talker's reverse common channel as a SDB message and the target group's dormancy response timer is set to zero at the CM, actual PTT latency at the talker client may be reduced to the time required to send an SDB request message on the reverse link followed by a SDB response message on the forward link.

...
[0087] In one embodiment, the CM may buffer the talker's first talk spurt. **After a user has pressed his PTT button** and the user's traffic channels are re-established, he may be allowed to communicate with the CM. At this time, since the listener traffic channels are not yet up, the CM buffers the talker's speech for future transmission to the target listeners. CM buffering may reduce the apparent PTT latency that the talker sees to the approximate time it takes to bring up the talker's traffic channel. FIG. 5 shows CM buffering according to one embodiment.

...
[0089] In one embodiment, where a shorter apparent latency is desired, the talker may be allowed to begin speaking before even his traffic channel is re-established. **Because the client MS is not yet in communication with the CM, the signal to the talker to begin talking is made by the client MS.** If the talker is allowed to speak before the talker's traffic channel is re-established, the client MS may buffer the speech. Because communication with the CM has not yet been established, permission to talk is being given "optimistically." FIG. 6 shows client-side buffering according to one embodiment. In one embodiment, both CM buffering and client-side buffering may operate concurrently. Client-side buffering may allow the apparent PTT latency to be small.

In contrast, independent claim 1 recites (emphasis added) "**anticipating** by a radio access network (RAN) that an MS is **likely to be a target of communication not yet initiated**; performing at least one of: when a loading level of a serving cell of the MS is below an assignment threshold, **assigning a traffic channel to the MS** to avoid paging-related delays for

the MS should the MS become a target of communication and..." Independent claim 30 recites (emphasis added) "adapted to **anticipate** that a mobile station (MS) is **likely to be a target of communication not yet initiated**, adapted to perform at least one of adapted, when a loading level of a serving cell of the MS is below an assignment threshold, to **assign a traffic channel to the MS** to avoid paging-related delays for the MS should the MS become a target of communication and..."

The appellants submit that Rosen, as cited, does not teach or suggest assigning a traffic channel to an MS that is likely to be a target of communication that has not yet been initiated. The appellants submit that the Rosen passages cited all pertain to communication sessions that have already been initiated. Thus, the talker and the target / listening devices have been or are being determined as a result of a request to initiate a session. The appellants fail to see where Rosen teaches or suggests anticipating that an MS is likely to be a target of communication that has not yet been initiated and then assigning a traffic channel to that MS. In addition, the appellants also fail to see where Rosen teaches or suggests assigning the traffic channel based on whether a loading level of the serving cell is below an assignment threshold.

Regarding the rejection of claims 1 and 30, the Examiner also cites Drucker column 4 lines 1-22 and lines 44-67, which read as follows (emphasis added):

SUMMARY OF THE INVENTION

In accordance with this invention, a method and apparatus for improving the power conservation of cellular mobile units while decreasing mobile unit paging delay is disclosed. The method includes partitioning the forward control channel into time frames. Each frame includes paging slots that will be monitored by a set of assigned mobile units. Following initial frame synchronization; a mobile unit is in ON mode monitoring the forward control channel when its assigned slot is broadcast. If a page directed to the mobile unit appears in the unit's assigned slot, the mobile unit remains in ON mode and continues with call processing. However, if the mobile unit's assigned slot contains a page to a different mobile unit, in accordance with the present invention, the mobile unit will continue monitoring the slots sequentially following its assigned slot until either an empty slot is detected or a page to the mobile unit is received. If an empty slot is detected, the mobile unit switches to OFF mode since it did not receive a page. In this manner, multiple pages to distinct mobile units assigned to the same paging slot can be sent in a single frame or in sequential frames, thereby precluding multiple frame page delays.

...

As noted, power consumption is a major consideration in the operation of some mobile units in a cellular phone network. Thus, **one primary goal of the present invention is to**

conserve battery consumption by a mobile unit operating in a cellular phone network in idle mode without imposing undue delay in page processing. The prior art conserved power by using a frame oriented scheme to transmit pages. This method allowed idle mobile units to be in an OFF mode during a specified period, thus conserving power. **However, one difficulty with the prior art is that call processing delays result. The present invention provides a system that reduces paging frame delays when more than one page assigned to a single paging slot is to be sent in a given frame.** The paging system of the present invention transmits pages for mobile units, which are assigned to the same paging slot, sequentially within a frame beginning with the assigned paging slot. In conjunction, each mobile unit is controlled to remain in an ON mode beginning with its assigned paging slot until a page for that mobile unit or an empty paging slot is recognized. Thus, if no page is recognized when the mobile unit is on, it is switched to an OFF mode to conserve energy during the remainder of the frame period. The system of the present invention can be implemented by modifying the control hardware and/or software at an MTSO, a set of base stations and a mobile unit within a cellular system.

In contrast, independent claims 1 and 30 each recite (emphasis added) **“signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced.”**

The appellants submit that Drucker, as cited, does not teach or suggest signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced. The appellants submit that the Drucker passages cited describe the reduction of paging delays as being with respect to prior art techniques. The appellants submit that Drucker, as cited, does not teach signaling an MS to transition operating modes in order to reduce paging-related delays. Rather, it is the entire approach of Drucker that “provides a system that reduces paging frame delays when more than one page assigned to a single paging slot is to be sent in a given frame.” Drucker column 4 lines 54-56.

Moreover, and as noted above, the appellants submit that the Rosen passages cited all pertain to communication sessions that have already been initiated. Thus, the talker and the target / listening devices have been or are being determined as a result of a request to initiate a session. The appellants fail to see where Rosen in combination with Drucker teach or suggest anticipating that an MS is likely to be a target of communication that has not yet been initiated and signaling that MS to transition to at least one operational mode in which paging-related delays for that MS are reduced.

Since none of the references cited, either independently or in combination, teach all of the limitations of independent claims 1 or 30, or therefore, all the limitations of their respective dependent claims, it is asserted that neither anticipation nor a prima facie case for obviousness has been shown by the Examiner. Appellants submit that claims 1-5, 8-10, 13, 14, 17-31, 33-36, 38 and 40-43 are fully patentable over the cited references and request that the Examiner be REVERSED.

Group 2 – Claim 6

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen in view of Drucker and Cheng et al. (U.S. Patent Number 6,353,602, hereinafter “Cheng”). This claim is ultimately dependent upon claim 1, which has been shown to be allowable above over Rosen in view of Drucker. The appellants therefore respectfully submit that claim 6 may be allowed on that basis. The appellants will also note for the record that claim 6 further introduces additional limitations that, particularly when considered in context with the claim from which it depends, constitutes incremental patentable subject matter. For the sake of brevity however, for the moment the appellants are content to rely upon the positions already set forth above. Thus, the appellants respectfully submit that claim 6 is allowable over the references of record and respectfully request that the Examiner be REVERSED.

Group 3 – Claims 7, 11, 15, 16, 32 and 39

Claims 7, 11, 15, 16, 32 and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen in view of Drucker and Diaz et al. (U.S. Patent Number 5,442,809, hereinafter “Diaz”). These claims are ultimately dependent upon either claim 1 or claim 30, which have been shown to be allowable above over Rosen in view of Drucker. The appellants therefore respectfully submit that claims 7, 11, 15, 16, 32 and 39 may be allowed on that basis. The appellants will also note for the record that each of these claims further introduces additional limitations that, particularly when considered in context with the claim from which it depends, constitutes incremental patentable subject matter. For the sake of brevity however, for the moment the appellants are content to rely upon the positions already set forth above. Thus, the appellants respectfully submit that claims 7, 11, 15, 16, 32 and 39 are allowable over the references of record and respectfully request that the Examiner be REVERSED.

(8) Conclusion

For the above reasons, the appellants respectfully submit that the rejection of claims 1-11, 13-36 and 38-43 is in error and should be reversed and the claims allowed.

Lastly, please charge any additional fees (including extension of time fees) or credit overpayment to Deposit Account No. **502117 – Motorola, Inc.**

Respectfully submitted,

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(9) Claims Appendix

1. (previously presented) A method of reducing paging-related delays for anticipated target mobile stations (MS), the method comprising:

anticipating by a radio access network (RAN) that an MS is likely to be a target of communication not yet initiated;

performing at least one of:

when a loading level of a serving cell of the MS is below an assignment threshold, assigning a traffic channel to the MS to avoid paging-related delays for the MS should the MS become a target of communication and

signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced.

2. (original) The method of claim 1, wherein the loading level of the serving cell comprises a traffic channel loading level of the serving cell.

3. (original) The method of claim 1, further comprising:
paging the MS in cells that have a loading level below the assignment threshold.

4. (original) The method of claim 3, wherein paging the MS comprises paging the MS in a manner that gives higher paging priority to pages for MSs for which communication has already been initiated.

5. (original) The method of claim 3, further comprising:
receiving a page response from the MS that indicates an MS signal strength;
assigning a traffic channel to the MS when the MS signal strength is above a signal strength threshold, even though communication targeting the MS has not been initiated yet.

6. (original) The method of claim 3, further comprising:
receiving a page response from the MS that indicates a number of MS signaling legs;
assigning a traffic channel to the MS when the number of MS signaling legs is below a signaling-leg threshold, even though communication targeting the MS has not been initiated yet.
7. (original) The method of claim 1, further comprising:
signaling the MS in at least one cell that has a loading level between the assignment threshold and an upper threshold to transition to at least one operational mode in which paging-related delays for the MS are reduced.
8. (original) The method of claim 1, wherein anticipating that an MS is likely to be a target of communication not yet initiated comprises receiving an indication from the group consisting of an indication that the MS is newly available to a group of associated communication devices wherein each of the group of associated communication devices is related to the MS as a messaging buddy, a presence query for the MS, a presence state update from the MS indicating that the MS is no longer in an offline presence state, an indication that a buddy of MS has become newly available, an indication that a message addressed to the MS is being composed, an indication that an address book listing associated with the MS has been recently accessed, an indication that messaging associated with the MS has been recently accessed, an indication that the MS requires emergency responder status, and an indication that the MS is in an active messaging mode.
9. (original) The method of claim 8, wherein the messaging associated with the MS comprises messaging from the group consisting of data burst messaging (DBM), short data burst (SDB) messaging, short message service (SMS) messaging, voice mail messaging, e-mail messaging, presence messaging, and Caller ID messaging.

10. (original) The method of claim 8, wherein the indication that the MS is in an active messaging mode comprises recent messaging from the MS from the group consisting of data burst messaging, short message service (SMS) messaging, short data burst (SDB) messaging, and broadcast programming request messaging, wherein the indication that the MS is in an active messaging mode comprises recent messaging for the MS from the group consisting of data burst messaging, SMS messaging, SDB messaging, voice mail notification messaging, and email notification messaging.

11. (previously presented) The method of claim 7, wherein the at least one operational mode comprises MS modes from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode, wherein the MS performs periodic location updates in the semi-dormant mode.

12. (canceled)

13. (previously presented) The method of claim 1, wherein signaling the MS comprises:

in at least one cell in which a loading level is below an upper threshold, signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced.

14. (original) The method of claim 13, wherein the loading level comprises a paging channel loading level of the serving cell.

15. (original) The method of claim 13, wherein signaling the MS comprises:

signaling the MS in at least one cell that has a loading level between an assignment threshold and the upper threshold to transition to at least one operational mode in which paging-related delays for the MS are reduced.

16. (original) The method of claim 15, wherein cells that have a loading level between the assignment threshold and the upper threshold associated with one of three groups according to their individual loading levels, a high load group, a medium load group, and a low load group, and wherein signaling comprises:

signaling the MS in at least one cell in the high load group to transition to a reduced slot cycle index (RSCI) mode;

signaling the MS in at least one cell in the medium load group to transition to a semi-dormant mode, wherein the MS performs periodic location updates in the semi-dormant mode;

signaling the MS in at least one cell in the low load group to transition to a control hold mode.

17. (original) The method of claim 13, further comprising:

when no response to previous signaling is received, signaling the MS, in at least one cell in which a loading level is above the upper threshold, to transition to at least one operational mode in which paging-related delays for the MS are reduced.

18. (original) The method of claim 17, further comprising:

when no response to previous signaling is received, signaling the MS, in at least one cell in which the MS has not yet been signaled, to transition to at least one operational mode in which paging-related delays for the MS are reduced.

19. (previously presented) The method of claim 1, wherein signaling the MS comprises signaling the MS in a manner that gives higher signaling priority to MSs for which communication has already been initiated.

20. (previously presented) The method of claim 1, wherein anticipating that an MS is likely to be a target of communication not yet initiated comprises receiving an indication from the group consisting of an indication that the MS is newly available to a group of associated communication devices wherein each of the group of associated communication devices is related to the MS as a messaging buddy, a presence query for the MS, a presence state update from the MS indicating that the MS is no longer in an offline presence state, an indication that a buddy of MS has become newly available, an indication that a message addressed to the MS is being composed, an indication that an address book listing associated with the MS has been recently accessed, an indication that messaging associated with the MS has been recently accessed, an indication that the MS requires emergency responder status, and an indication that the MS is in an active messaging mode.

21. (original) The method of claim 20, wherein the messaging associated with the MS comprises messaging from the group consisting of data burst messaging (DBM), short data burst (SDB) messaging, short message service (SMS) messaging, voice mail messaging, e-mail messaging, presence messaging, and Caller ID messaging.

22. (original) The method of claim 20, wherein the indication that the MS is in an active messaging mode comprises recent messaging from the MS from the group consisting of data burst messaging, short message service (SMS) messaging, short data burst (SDB) messaging, and broadcast programming request messaging, wherein the indication that the MS is in an active messaging mode comprises recent messaging for the MS from the group consisting of data burst messaging, SMS messaging, SDB messaging, voice mail notification messaging, and email notification messaging.

23. (original) The method of claim 20, wherein the group of associated communication devices includes a threshold number of members.

24. (original) The method of claim 20, wherein the group of associated communication devices includes a threshold number of available members.

25. (original) The method of claim 20, wherein the group of associated communication devices includes a threshold percentage of available members.

26. (previously presented) The method of claim 1, wherein the at least one operational mode comprises MS modes from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode, wherein the MS performs periodic location updates in the semi-dormant mode.

27. (original) The method of claim 26, wherein signaling the MS comprises signaling the MS to transition to the at least one operation mode for a particular period of time.

28. (previously presented) The method of claim 26, wherein signaling the MS comprises signaling the MS to transition to the semi-dormant mode for a maximum number of reports.

29. (previously presented) The method of claim 1, further comprising:
receiving an indication from the MS that MS battery life is low, wherein the at least one operational mode in which paging-related delays for the MS are reduced is limited to a reduced slot index mode (RSCI).

30. (previously presented) A radio access network (RAN) comprising:
wireless transceiver equipment adapted to support signaling transmission and reception for each cell of a plurality of cells;
a communications controller, communicatively coupled to the wireless transceiver equipment for each cell of the plurality of cells,
adapted to anticipate that a mobile station (MS) is likely to be a target of communication not yet initiated,
adapted to perform at least one of
assigning, when a loading level of a serving cell of the MS is below an assignment threshold, a traffic channel to the MS to avoid paging-related delays for the MS should the MS become a target of communication and
signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced.
31. (previously presented) The RAN of claim 30, wherein the communications controller is further adapted to page the MS in cells that have a loading level below the assignment threshold.
32. (previously presented) The RAN of claim 30, wherein the communications controller is further adapted to signal the MS in at least one cell that has a loading level between the assignment threshold and an upper threshold to transition to at least one operational mode in which paging-related delays for the MS are reduced.
33. (previously presented) The RAN of claim 30, wherein anticipating by the communications controller that an MS is likely to be a target of communication not yet initiated comprises receiving an indication from the group consisting of an indication that the MS is newly available to a group of associated communication devices wherein each of the group of associated communication devices is related to the MS as a messaging buddy, a presence query for the MS, a presence state update from the MS indicating that the MS is no longer in an offline presence state, an indication that a

buddy of MS has become newly available, an indication that a message addressed to the MS is being composed, an indication that an address book listing associated with the MS has been recently accessed, an indication that messaging associated with the MS has been recently accessed, an indication that the MS requires emergency responder status, and an indication that the MS is in an active messaging mode.

34. (previously presented) The RAN of claim 33, wherein the messaging associated with the MS comprises messaging from the group consisting of data burst messaging (DBM), short data burst (SDB) messaging, short message service (SMS) messaging, voice mail messaging, e-mail messaging, presence messaging, and Caller ID messaging.

35. (previously presented) The RAN of claim 33, wherein the indication that the MS is in an active messaging mode comprises recent messaging from the MS from the group consisting of data burst messaging, short message service (SMS) messaging, short data burst (SDB) messaging, and broadcast programming request messaging, wherein the indication that the MS is in an active messaging mode comprises recent messaging for the MS from the group consisting of data burst messaging, SMS messaging, SDB messaging, voice mail notification messaging, and email notification messaging.

36. (previously presented) The RAN of claim 30, wherein the at least one operational mode comprises MS modes from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode, wherein the MS performs periodic location updates in the semi-dormant mode.

37. (canceled)

38. (previously presented) The RAN of claim 30, wherein signaling the MS comprises:

in at least one cell in which a loading level is below an upper threshold, signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced.

39. (previously presented) The RAN of claim 38, wherein signaling the MS comprises:

signaling the MS in at least one cell that has a loading level between an assignment threshold and the upper threshold to transition to at least one operational mode in which paging-related delays for the MS are reduced.

40. (previously presented) The RAN of claim 30, wherein anticipating that an MS is likely to be a target of communication not yet initiated comprises receiving an indication from the group consisting of an indication that the MS is newly available to a group of associated communication devices wherein each of the group of associated communication devices is related to the MS as a messaging buddy, a presence query for the MS, a presence state update from the MS indicating that the MS is no longer in an offline presence state, an indication that a buddy of MS has become newly available, an indication that a message addressed to the MS is being composed, an indication that an address book listing associated with the MS has been recently accessed, an indication that messaging associated with the MS has been recently accessed, an indication that the MS requires emergency responder status, and an indication that the MS is in an active messaging mode.

41. (previously presented) The RAN of claim 40, wherein the messaging associated with the MS comprises messaging from the group consisting of data burst messaging (DBM), short data burst (SDB) messaging, short message service (SMS)

messaging, voice mail messaging, e-mail messaging, presence messaging, and Caller ID messaging.

42. (previously presented) The RAN of claim 40, wherein the indication that the MS is in an active messaging mode comprises recent messaging from the MS from the group consisting of data burst messaging, short message service (SMS) messaging, short data burst (SDB) messaging, and broadcast programming request messaging, wherein the indication that the MS is in an active messaging mode comprises recent messaging for the MS from the group consisting of data burst messaging, SMS messaging, SDB messaging, voice mail notification messaging, and email notification messaging.

43. (previously presented) The RAN of claim 30, wherein the at least one operational mode comprises MS modes from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode, wherein the MS performs periodic location updates in the semi-dormant mode.

(10) Evidence Appendix

Not applicable.

(11) Related Proceeding Appendix

Not applicable.